Murder mystery

The Griffin’s were packing their car up to head to the Poconos for the New Year’s weekend. This was a pretty regular trip since their great grandmother had purchased the families vacation home on Lake Wallenpaupack back in 1942. The house had been redone several times, but the land was beautiful and the lake was very large. During the winter it would freeze enough that the kids could ice skate or go ice fishing during the day. The house was large enough to comfortably sleep 24, but on this weekend they were going to squeeze over 35 people into the house. Family by family, they all started to arrive at the house. It was a first come, first serve on the room situation so it was very beneficial to get their early enough.

Since many of the brothers and sisters were married with children there were going to be a lot of relatives that would be meeting for the first time and many personalities were bound to clash. No one expected to end this celebratory weekend in the manner that it did.

When the clock struck midnight, all members of the family went out onto the ice and started banging pots and pans, lighting off fireworks, and running around the ice. After the fireworks ended and everyone started to head back into the house, some individuals were missing – Cara, Ralph, Jacob, Kristen, Ernest and Deidra. They found this odd because they were not all part of the immediate family, some knew each other while others were on their first trip to the mountain house. The remaining members scoured the around the house and found some very disturbing pieces of evidence. With their flashlights in hand one person saw a gaping hole in the ice. A few feet into the brush another person found an ice pick that had clearly been used to break flesh (either on a wild animal or human). On the door was a note taped that said, “It is all my fault” On the note seemed to be drops of water which were later determined to be tears. The police were immediately called. They arrived and said the only thing they can do at the moment is look around the area for more evidence and then file a missing persons report when they have been missing for more than 24 hours. They started to interview the family members to get the back story on all the individuals. That report is included in the evidence. Months went by and nothing was found other than the ice pick and a piece of hair stuck into the split wooden handle of the ice pick. During the Memorial Day weekend, other families came up to celebrate the official start of summer. When Randy Snyder, a young kid from the family next door went out to the lake with his dog he took a doggy chew bone. He threw it into the water and had the dog go and retrieve it. When the dog returned he had brought back a bone, but it was NOT the bone the Randy had thrown! Randy ran back to his family to show them what the dog had returned. The family immediately called 9-1-1 because they feared the worst. They knew of the situation that had happened in the winter and they were very afraid that their dog had just uncovered the remains of a missing person.

The diving team of the state police was called in and they did eventually uncover four sets of bones. The Griffin’s were obviously aware there was a good chance they were their family members, but they still wondered what had happened to the other two individuals.

Part I –

Analyze the bones to determine which of the individuals have been found and which individuals are still missing.

Ralph – Caucasian, 5’6”, 21 years of age

Cara – Asian, 5’0”, 35 years old

Jacob – African American, 5’5”, 17 years old

Ernest – Caucasian, 5’7”, 34 years old

Kristen – African American, 5’2”, 37 years old

Deidra – Caucasian, 4’11’’, 40 years old

Part II – Karyotype – The tear drop was analyzed and the DNA found within the epithelial (skin) cells that fell with the tear have been organized into a chromosomal picture. Organize a karyotype for any person(s) who could have been the owner of the teardrop based on the image given. Each and EVERY individual who could not be IMMEDIATELY ruled out must be included in the evidence.

Part III – Blood Typing – Determine the type of blood that was found on the ice pick. To rule out individuals/suspects a sample of blood has been taken from all members of the family that were present that night.

Part IV – Pedigree Analysis – Police interrogated every person at the party and were able to develop a story about each of those that were missing on the night. This really opened up the case in terms of motive. They were surprised what information they learned. It is your responsibility to read through the stories and create a pedigree which will show the relationships among the individuals.

Part V – Gel Electrophoresis - The hair that was found on the wooden handle has been analyzed. The DNA from the sample must be run against the DNA of any suspect. Determine a possible match and/or rule out possible suspects. Anyone who has been missing or has MOTIVE to kill are the potential suspects.

Cara’s Story

This was Cara’s first trip to the mountain house. She was brought here by her newlywed husband, Michael. Cara was a little hesitant because of the circumstances that brought her into the family. Michael was in the military and was stationed over in Japan. While he was over in Japan he began to form a relationship with Cara. Unfortunately, Cara was unaware that Michael was still married and already had a family back in the states. By the time of his tour was complete, Cara has found out that she was pregnant. She gave birth to their baby girl they named Jin. When Michael broke to the news to his family, his first wife Alexis immediately filed for divorce and full custody of their children Mary and Charlotte. When Michael told his brother, Frankie, and his sister Rhonda that he was bringing Cara to the party they weren’t sure how welcoming their parents, Keith and Tonya would be towards Cara. Keith and Tonya loved their grandchildren and they hardly get to see them so an invitation was sent out to Alexis to bring her children up to the mountain house that day. Everyone in the family got along with Alexis so it would not be awkward for anyone (except Cara) for Alexis and her kids to be present.

Ralph’s Story–

Ralph was troubled young boy. He grew up looking a little different than the rest of his classmates. Gym class was torture for him because he knew that his body was a shaped differently. He was shorter than most of the guys he knew, had larger hips, and even had the curves of a female figure. Some kids even questioned his parents because they said he looked like he had the bone structure of an asian descent. Kids in middle school were cruel to him and it really affected his self esteem and ability to have relationships. His parents, Edmond and Jackie, were at their wits end because he was started to act out in ways they had never seen before. He at one point got so mad that he kicked their family pet, across the room because she kept meowing. His older brother Gus was the complete opposite. A stellar scholar/athlete while he was in high school and even went on to an Ivy League school to be a part of their crew team. Gus fell in love while at school and eventually married Stephanie. They had a son, Charlie, soon thereafter. Ralph’s sister, Becky, was bringing her boyfriend Tim. They weren’t very serious but Tim was very good to Ralph. On that night, Tim actually stood up for Ralph when he overheard Jacob, Ralph’s cousin, making fun of his body. Unfortunately, no matter how much he tried Ralph could not slim his upper chest down, so it did look like he had some sort of breast development.

Jacob’s Story

Jacob was really mad because he had to come to this New Years Eve party with his family. He was now a junior in high school and he didn’t want to celebrate with family anymore. He wanted to bring in the New Year with his friends. On several occasions he screamed at his parents, Gina and Henry, for making him “celebrate with his stupid relatives!” He claimed that they let his older brother Kyle skip out when he was in high school. Henry called up his brother, Edmond, to ask if all his kids were coming to the party. Edmond said, “Of course they are coming, why wouldn’t they? You know Mom and Dad would upset if they weren’t there.” When Henry tried that approach on Jacob, he answered “I don’t care if Grandma Irene or Grandpa George are upset!” From the moment Jacob got to the house he was a pain. He kept bothering Ralph. He at one point said he better not go on the ice or it might break. Instead of calling Cara by her real name he just called her Angelina (Jolie) since he felt that she was a homewrecker. When Michael figured out why he calling Cara by the name Angelina, he went over to Jacob and said if he called her that one more time “Jacob, you’ll be swimming with the fish!” When Jacob’s younger sister, Riley, heard Mike say that she asked what that meant. Jacob responded with, “It means he is going to kill me!” Riley started to cry and ran to her mom.

Ernest and Deidra’s Story

Ernest and Deidra are an estranged brother and sister. Since they found out they were in line to inherit the house they started to battle one another. Deidra, being the older of the two was the obvious choice for the house. Ernest felt since Deidra was incapable for having children it would be pointless for her to have ownership over the family house. Deidra was told from a young age that she was an infertile girl. The doctor looked at her symptoms of a low hairline, and lack of secondary sexual phenotypes it was a clear sign that she suffered from a chromosomal disorder. Even though Deidra could not have children she was still married to a nice man, Reynold. Right now, Deidra’s mother and father, Betty and Hugh own the house. Back in day Hugh and his brother George had a very similar fight when their parents died, but good thing their sister Tonya was there to settle things down between then. She was always the mediator between George and Hugh. Ernest is married to Lilly. They have two children Amber and Jeremy. Ernest was hoping for the house on the lake because he has heard about the scholarship Gus received and he wanted Jeremy to start working on this rowing/crew ability as soon as possible. The only way in which he would be able to inherit the house was if something happened to Deidra. During the police interview Lilly said she saw Reynold and Ernest in an argument, but it didn’t seem too serious. She didn’t have to time to ask Ernest what it was about. When police questioned Reynold about this conversation, he said Ernest was trying to blackmail him in order to get the house. Reynold refused to elaborate in the interview.

Kristen’s Story

Kristen was another one who married into the family. She, like Cara, was a part of an interracial relationship. She made no attempt to feel sorry for those who were not comfortable with the situation. She was confident in herself and spoke her mind whenever she felt she needed to stand up for herself. Kristen grew up in Atlanta, Georgia where she met her future husband, Frankie. He was a very successful businessman who had a knack for investing of other people’s money. Unfortunately, he got involved with the wrong side of business and started selling his investor secrets to the highest bidder. Frankie had been smuggling money into an off-shore bank account that Kristen was unaware of until she stumbled across a bank statement with his name on it from the First Bank of Jamaica. She started doing her own little research and saw that he was swindling her out of money that was rightfully hers, but also the money for their son, Xavier’s college fund. She was furious and only recently brought it up to Frankie. She told him that she would blow this scandal out of the water in a “hot second” if he every messed with her. The only reason people knew about this was because Kristen saw that her brother-in-law was involved with this as well. He would send tips from Japan over to his brother. When Kristen found out he was involved, she went right to him and started digging into him. Saying that, “you have ruined your own family, you are not about to ruin mine!!!!”

Here is what you need to hand in for EACH part:

1. ) A chart that has the skeleton number, race of individual, possible height, sex of the person, and possible age, and the identification of that skeleton with the person from the party. Attach all of the charts that you filled in during the bones lab. But the final chart should be a well organized summation of the evidence.

2. ) You have been given the karyotypes of individuals that were at the party. Refer to the evidence and you must complete a karyotype for any person of the same gender as the one collected from the evidence.

3.) A clear chart that has a list of the names that you tested and the exact blood type that they must be. Determine the possible blood types of those involved with the dinner party based upon all of the relatives.

4.) A pedigree which is to be NEATLY drawn. It may take at least one rough draft pedigree before you get to redraw it for the neatness. I do not want to see eraser marks all over the pedigree. The pedigree is to be done with the correct symbols and notations.

5.) A rough sketch (done on the computer) of the gel that you produced or an actual picture that you took with a camera or cell phone. The lanes should be clearly labeled with the individual whose DNA could be found in that well. Below the sketch, you are to determine which individuals you are able to rule out as being suspects of the crime. You will be asked in your prosecution trial what gave you that conclusion. If you cannot answer this question, your entire evidence from gel electrophoresis will be thrown out.